

What I claim is new is:

1. A method for producing an electric heating cloth which is heated uniformly and is characterized by high reliability and high flexibility comprising the steps of: interweaving a first group of non-conducting threads arranged in a first direction with a second group of heating conductive resistive threads, each of said second group of heating conductive resistive threads having outer diameters of less than 0.7 mm, in a second direction which is perpendicular to said first direction, each of said heating conductive resistive threads having a nucleus and at least one shell surrounding said nucleus, said shell being a matrix of an elastomeric, thermally stable, high temperature polymer and dispersed particles of carbon; and adding a means to said cloth for connecting said heating conductive resistive threads of said heating cloth to a source of electrical power.
2. The method according to claim 1 wherein said interwoven threads are arranged in multiple heating zones.
3. The method according to claim 1 wherein said dispersed particles of carbon in said shell of said heating resistive threads are particles of industrial carbon made from acetylene and particles of colloidal graphite.
4. The method according to claim 1 wherein each of said heating resistive threads has a linear resistance in the range of 2.7 - 1800 Ohm/cm.

5. The method according to claim 1 wherein said interwoven non-conducting threads and said heating conducting resistive threads have linear densities of about 8-18 threads per centimeter of said cloth.

6. A method for producing an electric heating cloth which is heated uniformly and is characterized by high reliability and high flexibility comprising the steps of: interweaving a first group of non-conducting threads arranged in a first direction with a second group of heating resistive threads arranged in a second perpendicular direction, each of said second group of heating resistive threads formed by dissolving a thermoplastic polymer in an organic solvent; adding an industrial carbon which is produced from acetylene to form a first mixture; grinding said first mixture; adding a colloidal graphite to said first mixture to form a second mixture; grinding said second mixture; coating a thread with said second mixture in a spinneret; and heating said coated thread to remove said organic solvent.

7. The method according to claim 6 wherein said thermoplastic polymer is polyvinylidene.

8. The method according to claim 6 wherein said organic solvent is acetone.

9. The method according to claim 6 wherein said thermoplastic polymer is

dissolved in said organic solvent in a ratio of about one mass part of said polymer to about six mass parts of solvent.

10. The method according to claim 6 wherein said industrial carbon is added to said thermoplastic polymer and said organic solvent in a ratio of about one mass part of said industrial carbon to about 2 mass parts of said thermoplastic polymer.

11. The method according to claim 6 wherein said thread is a polyester thread of about 35 gauge.

12. The method according to claim 6 wherein said thread is coated with said second mixture at about 20 °C and said thread is coated in said spinneret at a pulling speed of about 25 m/sec.

12. The method according to claim 11 wherein said thread has about 40 twists per meter (linear density: 28.6 tex (.0286 g/m)).

13. The method according to claim 6 wherein said coated thread is dried in a hot air stream at about 105 -110 °C.

14. The method according to claim 6 wherein said thermoplastic polymer is dissolved in said organic solvent in a ratio of one mass part of polymer to about seven

mass parts of solvent.

15. The method according to claim 6 wherein said industrial carbon is added to said thermoplastic polymer and said organic solvent in a ratio of about 5 mass part of said industrial carbon to about 20 mass parts of said thermoplastic polymer.

16. The method according to claim 6 wherein said thermoplastic polymer is dissolved in said organic solvent in a ratio of one mass part of polymer to about 6.5 mass parts of solvent.

17. The method according to claim 6 wherein said industrial carbon is added to said thermoplastic polymer and said organic solvent in a ratio of about 5 mass part of said industrial carbon to about 20 mass parts of said thermoplastic polymer.

18. The method according to claim 6 wherein said thread is a twisted glass thread of about 20 gauge, 45 twists per meter (linear density: to tex (.050 g/m)) and is pull in said spinneret at a speed of about 15 m/min..

19. A method for producing an electric heating cloth which is heated uniformly and is characterized by high reliability and high flexibility comprising the steps of: interweaving a first group of non-conducting threads arranged in a first direction with a second group of heating resistive threads, each of said second group of heating resistive threads formed

by dissolving a thermoplastic polymer in an organic solvent; adding an industrial carbon to form a first mixture; grinding said first mixture; adding a colloidal graphite to said first product to form a second mixture; grinding said second mixture; coating a thread with said second mixture in a spinneret; and drying said coated thread to remove said organic solvent.

20. The method according to claim 19 wherein said industrial carbon is produced from acetylene.